



UNIVERSITY
OF MICHIGAN

MAR 23 1957

PUBLIC HEALTH
LIBRARY

California's Health

Vol. 14, No. 18 • Published twice monthly • March 15, 1957

A GERIATRIC UNIT IN OPERATION

LIONEL Z. COSIN, M.D.

Cowley Road Hospital, Oxford, England

Many countries, and especially the United States and Great Britain, are faced with the problem of the care of the elderly. This problem arises from the changing proportion of the elderly in the population. This change started with the industrial revolution, but our improved methods of sanitary engineering and other public health measures in the last 100 years have been a major factor. For example, it was in 1854 that the last outbreak of Asiatic cholera in Oxford took the lives of 1,200 people due to contaminated water supplies. Because our water supplies, our milk supplies and our food supplies are controlled, and the infectious diseases causing infantile deaths have been subdued considerably, people live longer. Just 100 years ago, in 1850, only about one-third of the newborn babies in Great Britain could be expected to reach the age of 65. By 1950, almost two-thirds could be expected to reach the age of 65, just about double the number 100 years previously. Thus in 1901, we had only one and three-quarter million people of pensionable age (men over 65 and women 60 years of age). By 1939, there were five and three-quarter millions. In 1946 there were six and three-quarter millions, and by 1978, the most accurate estimate is that there will be nine and one-half million people of pensionable age. In a total population of nearly 50 million, one person in five will be retired, "put back on the shelf," not used fully and completely from the social point of view. In the United States, you are not near the 20 percent level,

This address was given before the Public Health Section of the California Medical Association at its meeting in May, 1956. Dr. Cosin, an eminent gerontologist, heads the Cowley Road Hospital of Oxford, England, which is a county infirmary serving as the Geriatric Unit of the United Oxford Hospitals. The unit accepts geriatric patients for acute hospital treatment and for rehabilitation from the general hospitals and from private physicians.

but you are still going to have many more elderly people than we in Britain. They may be retired from gainful employment, but they will be in need of some way of spending their time. They can either find odd jobs, or start deteriorating. The increasing number of elderly people is going to bring social pressures that we are already experiencing, industrial problems of retirement plans, especially medical problems and sociomedical problems.

The Origin of County Infirmaries

Britain's county infirmaries were not founded for the care of the elderly at all. They have their origins in the passage of the first Poor Law Act of 1601, in the time of Queen Elizabeth. Even in those early days, there was a problem of financial destitution in each small community. Acts of Parliament were passed whereby the responsibility was saddled on the community

whence the person first came; they spent more on investigation and transferring back than in looking after the individual. As time went on the problem became larger. In the Eighteenth and Nineteenth Centuries, small communities banded into groups of parishes and in 1834 established the first workhouses. The community transferred its guilt by incarceration for an indefinite period of time. Through the forced labor of healthy young destitute people, we were really condemning as criminals people guilty of financial destitution. With the development of the industrial revolution, fewer able-bodied young people entered the workhouses. Instead, more and more elderly, when they could no longer work, were faced with financial destitution, not primarily ill health. They feared going into the workhouses, very understandably. Perhaps it was an advantage to commit a crime, because when you went to prison, you did get a definite sentence. The elderly got an indefinite sentence that went on for life. By the beginning of the Twentieth Century, it was recognized everywhere that the elderly were coming into the workhouses more and more, because of their increased survival; that if they stayed long enough, they became ill; and if they became ill, medical and hospital services had to be provided. So about 50 years ago in Great Britain, hospital infirmaries were provided. A doctor was attached to the unit, who popped in now and again. The relatively few nurses in those days did their best but were unable to cope with the

many problems. By the beginning of the war, we had great difficulty emptying our infirmaries.

Development of the Geriatric Program

When the Emergency Medical Service was set up to deal with air raid casualties and service cases in 1939, we had to use our infirmaries. In the late war years when the number of casualties started diminishing, it became possible to use the Emergency Medical Service for treating old people with improved surgical, medical and physical rehabilitation services. I found that I myself had been responsible for the medical care of about 300 chronic sick patients who had been in the hospital infirmary beds all those war years. We felt there was nothing more that could be done for them. There *was* something that could be done, but we were not aware of it then.

We started by analyzing what happened to the elderly patients recently admitted to our hospital unit. We found to our surprise that many, many elderly people could be treated medically and surgically, and with the chance of physical rehabilitation were capable of going back to their own homes in a short time. They were pleased to be given the opportunity to go home, especially if there were no complicating social problems.

So we began to follow our results more carefully. Over a period of 18 months we studied all patients over the age of 60 who were admitted, and followed them for six months. We found that 80 percent of these aged patients admitted to the hospital for the chronic sick were suffering from acute medical or surgical conditions, and we had to treat them as acute patients. Roughly half of that 80 percent did not survive the first 60 days after admission; of the half that did survive, nearly all were discharged within the six months after admission.

But what of the other 20 percent who were of longer stay? It was an epidemiologist, a public health expert, who pointed out the very good results we were getting: only 3 percent of the patients were bedfast six months after admission to the unit. What of the other 17 percent? What did they need? Why were they in a hospital?

At that time, in 1947 and 1948, we became very short of nursing staff and it became necessary to reduce the

number of nursing beds considerably. There were groups of patients who could receive less than 24-hour nursing service, actually with some advantage to themselves, and here was our first great advance.

Three Types of Hospital Annexes Organized

We organized three types of long-stay annexes. (1) We had a *long-stay annex for ambulatory patients*, who had recovered well medically, had not needed physical rehabilitation or no longer needed it, who were physically independent, could make their beds, get meals, do a little work on the ward, and yet had no place to go. I insisted at that time that if these patients were fit to be discharged, all we needed to provide was the appropriate amount of medical supervision, the appropriate amount of nursing supervision, and no night attention at all. My arguments were, first, we didn't have the nursing supervision to provide, and second, if they were living at home, there would probably be no one to look after them at night. I must admit this suggestion of mine gave a lot of people many sleepless nights, and they weren't the patients. (2) The next type of annex we provided was the *long-stay annex for the physically infirm patients*, who were still physically disabled or still undergoing courses of physical rehabilitation. We decided that they needed medical supervision, nursing supervision, a certain amount of bedside nursing service, and some physical assistance, either human or mechanical, which could be decreased under medical prescription according to the patient's need. Ultimately it was possible to transfer a number of these patients in their sixties, seventies and eighties into the long-stay annex for the ambulatory patients. We were getting a far more functional approach; we were coming to important decisions, sometimes right, sometimes wrong. Interestingly, when a decision had to be made to transfer a patient to the annex for ambulatory patients, there were very few mistakes indeed, and very few patients had to be returned to the annex for the infirm or to the active treatment ward.

We recognized that there was another serious medical problem, that of the mentally infirm, the confused elderly patient, unfortunately re-

ferred to as having senile dementia. Many of these patients do very well with the appropriate medical treatment if the medical condition is recognized sufficiently early, and the patient admitted to a medical unit. But where can you find medical units prepared to take noisy, restless, disturbed, incontinent old people? They upset ward routine, and the ward routine is something that shouldn't be upset too often. With certain exceptions, the easy way out in Great Britain today is certification and commitment to the mental hospital. Now that is unfortunate; it is bad medical practice; it is a mistake in diagnosis and prognosis. The place for these old people is in a geriatric unit where simple but adequate provisions deal with the problem of noise and where if given slight additional nursing attention, they are not long-term psychiatric problems, although in a few cases certain psychotic residual may be left which is not a serious problem. In the acute wards we are providing sound-insulated rooms with large inspection panels of armor-plated glass, so that the nursing staff is able to get in and out of these units as quickly as possible after giving the patient appropriate treatment and get on with their other work. These patients now do not disturb other patients, and the nursing and medical staff have adjusted very well indeed to the patient whose noisiness no longer disturbs other patients and who no longer disturbs telephone conversations. These people are ill for a few days, a short-term medical problem. (3) Properly treated, they can often be gotten out of bed early and out of the acute wards and then they are placed in a third annex, the *long-stay annex for the mentally infirm* where other therapy is continued. As a result, we have been able to take on a large load of patients who were being passed onto the mental hospital. Relatives are willing to take this type of patient home, because they know they will not be faced with a very difficult home situation for long periods of time. Because we have no waiting list, we can accept these patients for readmission when it is needed almost as emergencies on the first or second day after the request.

The Acute Treatment Unit

Hospital administration is based on a fallacy. In Great Britain, it is based

on the assumption that every patient is sick nigh unto death from the moment of admission to the hospital until he runs out with two suitcases and a greatcoat and hops into a taxi. That is the basis of current hospital administration in many countries . . . a patient stays in a 24-hour nursing bed until he is discharged. But what nonsense! The medical and nursing staff all recognize that early ambulation is a very good idea. Even after a major surgical operation some surgeons get their patients up on the first or second day. We might take the step of transferring these patients to a convalescent annex or a physically infirm ambulatory ward after three, four or five days. I would give you the principle that any hospital organization providing 24-hour nursing service for all its beds is inefficient; that any hospital organization should consist of both high-cost beds with 24-hour nursing service, and low-cost beds with less nursing service. As the patient's condition improves he needs less service.

With our present organization at Oxford, we have 300 beds, of which only 70 are acute treatment beds. These beds are used for assessment and treatment. That is all I can staff. It is surprising how rapidly old people get better if you bother to study their blood urea, their hemoglobin, if you bother to carry out the EKG and certain other forms of investigation and service. It takes only two or three weeks to enable us to know that a certain group of patients can be independent in the community, and others need longer periods, or can go into nursing homes or rest homes. But I have made it a rigid rule that no elderly patient 70 or more is fit to be discharged directly from an acute treatment bed. These old people are going back to work; it's a 24-hour job to look after yourself when you are 70 or 80, and you've got to be prepared for it. Attached to these 70 acute treatment beds, we have a 20-bed convalescent ward and over 100 rehabilitation beds.

The Way This Works

When a doctor and the social worker agree, the patient goes from the acute treatment unit to the short-term convalescent unit for two or three weeks only. This is for ambulatory patients, or patients about to go on an out-patient basis. They are able

to dress and look after themselves, and they have no bedside or night nursing.

A larger group of patients is steered into the rehabilitation wards. While investigation of domestic situation is being carried out, programs of physiotherapy and occupational therapy are going on. The physiotherapy department is largely responsible for the relief of skeletal pain, which is very important in old people; working alongside, the occupational therapy department is responsible for the restoration of the activities of daily living. They are also helped by the clinical psychologist.

In the unit for the confused elderly patient, therapists give occupational therapy, physical therapy and remedial exercises. This is given because, whether confused or not, it is important not to trip over the door mat. We find that it has been possible to decrease the accident rate in confused patients by giving them corrective therapy. Roughly half of them will be going back to their own homes. We must prepare them for the responsibilities of living out in a community with their families, in housing which may be good or bad, but which we know about by investigation.

Then there is the independent unit where there is no nursing care at all. The patients have severe physical disabilities, but take care of their rooms, prepare one of the meals, and buy tea and other supplies. Medical supervision is under two private practitioners and myself visiting once a week.

I haven't given you a description of a permanently bedfast unit, because none is necessary. If institutional and domiciliary neglect is prevented, the recently admitted patients who have not had to wait a very long time for appropriate treatment can in almost all circumstances be up and about. We have no male ward for bedfast patients; we have no female ward for bedfast patients. These patients who need to be bedfast for many months or even years are now quite few, and I am content to have them looked after in the acute treatment wards.

What about terminal care? The problem of terminal care is that of a short stay. It is a very sad and serious condition associated with profound medical and emotional problems. I insist on treating all those patients in the

acute treatment ward. If we have failed medically, it is up to us to give these patients the best advantages and the greatest amount of comfort, not only to themselves in their last few days on this earth, but to their relatives.

The Contribution of a Geriatric Service

We have found in Great Britain that many acute medical conditions occurring in old people, especially respiratory conditions, are more successfully treated in the old-century way of sitting them up. We have been so concerned about the elderly patient falling out of bed or coming to some accident if they are in a chair, that most of us have dismissed this possibility from our minds. Today, at Oxford, we tend to get patients out of bed and into comfortable chairs for most of the day as part of their medical, nursing and physical treatment. Physical therapy is now an important part of the medical program. This meant that the nursing staff had to be instructed in physical methods of medical treatment. The physical therapist comes into the hospital wards and plays a very dynamic part in the medical treatment program. There are not so many fatalities since we have used this new method of not treating the patient in bed, and we are also not wasting nursing time.

We provide acute medical service for the patients sent us by private physicians, and in addition, one-third of our admissions come from the acute general hospitals. We encourage this, because we feel that techniques considerably different from those of the acute general hospital have to be used and taught concerning the respiratory, cardiac, digestive and physical systems of elderly patients.

One finds in many acute hospitals that these elderly patients are waiting, deteriorating for four or five months before they can be transferred to places where they can be rehabilitated. We now take the attitude that it is enormously urgent to get elderly patients out of the acute hospital for the hospital's sake, for the ward nurses' sake, and for the patients' sake.

By arrangement with the accident service, we now take into the rehabilitation wards many elderly patients with fractured femurs, 10 to 14 days after their pinning or nailing. We also

provide a rehabilitative neurosurgical service, because we found that the number of cerebral space-occupying lesions is much larger than it was some years ago. We can deal with some of these lesions, such as a brain clot, very adequately with the aid of a neurosurgeon. Otherwise these patients with intracerebral hematomas would be totally disabled for a long time, but we are now able to get them back to their homes from our rehabilitation wards.

Multiple Assessment

We have discarded the routine medical approach for the elderly patient. If a young man of 21 has an appendectomy, he can be discharged to his home; that is a simple problem. When we are faced with as simple a problem in an elderly patient, we are rather surprised. So we carry out what we call the *dynamic quadruple assessment*. It is divided into four sections: pathological, sociological, psychological and residual physical.

The Pathological Assessment

In the *pathological assessment*, we take into consideration the medical, surgical and biochemical factors. A very common occurrence in geriatric practice is cerebral anoxia, probably due to the fact that there is insufficient blood going to the brain. This may be due to cerebral arteriosclerosis in part, but also may be due to some underlying condition of heart or lung or kidney. All these different factors have to be much more carefully considered, not only by themselves but also in their internal relationships, one with the other. There are a series of pathological problems that affect the patient. If we do not get the whole diagnosis, we do not get the whole prognosis. One of the most important conditions in confused elderly patients is dehydration due to insufficient fluid intake, which means the kidneys are not given enough fluid to work successfully. The patient then becomes more confused. If this happens, they are likely to become more noisy; then they are apt to become a nuisance in the ward. If they are a nuisance they are given more sedatives and when they are given barbiturates, they become more noisy and restless, all because we have not taken enough time to diagnose the multiple conditions from which the elderly pa-

tient is suffering. It is only the specific geriatric unit that seems capable of day in and day out handling of this sort of thing, because it knows what the problem is, how to recognize it, and how to cope with it.

The Psychological Assessment

Secondly, there is the *psychological assessment* from a broad viewpoint. We have to assess the patient's make-up, which manifestations are permanent, which are temporary, which can be treated by medical means alone, which will need protecting on a long-term basis, and which will need the assistance of the psychiatrist.

The Sociological Assessment

Then we take the *sociological assessment*, a broad assessment of total environment. We consider the changes to which the patient has been exposed in his home, in the acute ward, in the recovery or rehabilitation ward. The medical social worker is introduced into this picture very early. She may have seen the patient at home or sees the relatives as soon as the patient is admitted to the treatment ward. The social worker soon has a fund of knowledge regarding the patient, having secured information by horizontal communication (with the medical department, etc.) which she can hand on to the family or the assisting agency of the community involved, and she starts discussing plans for the patient's discharge.

Suppose a patient with a stroke looks as though she is going to recover after five or six days in the hospital, and if she recovers what do the family have in mind? In general, experience in Great Britain has been that families are usually willing to take a patient home, but they wonder if they should. Here is a patient with a stroke and classified as "chronic sick" which they have come to believe is very, very serious and in need of hospital service for an indefinite period of time.

In the case of the woman with the stroke, who on the outside may live in an upstairs apartment and will have to be able to climb 12 stairs, horizontal communication comes in. The social worker will have to go to the physical therapist and put this problem before her: "Can Mrs. J— climb 12 stairs and if not, why?" The physical therapist will go to the physician, who asks the internist if this

woman, who had the stroke because of a coronary infarct, can go up 12 stairs and the answer often comes back, "yes."

The horizontal communication system runs right through the dynamic multiple assessment; the medical social worker informs the relatives what is going on, how the patient is receiving occupational therapy and physical therapy, how they are carrying out a program of daily living. Relatives can also come to see the patient in the process of doing things for herself with less assistance and perhaps walking independently. In addition, the medical social worker arranges for the patient to have holiday admissions to give the family a rest. She will arrange for the patient to come in three to four weeks during the summer so that the family can have a vacation. She will also assure the patient that if she is in need of medical care, she can get immediate admission to the geriatric unit. Moreover, if there is stress in the family or community, the medical social worker will arrange intermittent admissions for two to three weeks every two to three months so that the family can adjust itself to the situation. Should there still be some stress and should the patient be one of those unfortunate senile nonpsychotics, then we will arrange for him to come up to the day hospital where he can come one to five days for occupational therapy and physical therapy, lie on a hospital bed which is unoccupied, and go home at 6 o'clock at night, having come at 9 o'clock in the morning. If the patient has an active day, he will be able to sleep at night and not need sedation. If you put these patients in bed 24 hours a day, they will get nocturnal delirium because they are so confused they do not know whether it is day or night. With the type of program we have, our experience with the family is very good.

The Residual Physical Disability

From these three major assessments made in each case by a multiple disciplinary team, the medical and pathological, the psychological and the sociological; it is possible to make a fourth assessment of what I call the *residual physical disability*. It isn't what is wrong with you that is important, it's what you can do for yourself or what you are allowed to

do for yourself if the correct approach is taken by nurses and medical staff.

Follow-up Services in the Community

The essence of a proper geriatric service is continued follow-up care. Why can't people go back to the circumstances in which they were living? The difference might well be only a monthly visit from the social worker and an hour a day from domestic help. The great importance of the housekeeping service, our so-called Home Health Service, should be stressed. Until you can organize these additional services, the number you have in your geriatric unit will be greater than need be. A single rehabilitation program has to go right through to independent living. If you have a unit for achieving independent living in the institution first, then a good social worker will find solutions for that type of patient.

The follow-up service is the major thing in the continuation of the dynamic quadruple assessment. In the early days we found that of the 40 percent of patients who were discharged, 8 percent were readmitted within the following 12 months. These were unplanned readmissions. Now we have a higher readmission rate, because of planned readmissions. I plan holiday and vacation readmissions. I plan intermittent readmissions; I offer immediate readmission for medical need. There is a high rate of planned readmissions; we maintain a low rate of unplanned readmissions, and I am using my beds much more economically.

Results

By getting better organized, by bringing in additional professional staff we have been able to reduce the period of stay for newly admitted elderly patients more and more. In 1949, as I have mentioned, only 3 percent of admissions were left on the nursing ward at the end of six months. For the 97 percent who died or were discharged, or were up and about in other wards, the average hospital stay was 76 days. But of the 76 days, only 44 were in the nursing ward (acute), and 32 were in one or another of the annexes. They were spending their time getting better.

By speeding things up, and knowing better what to do, the average patient admitted in 1953 was only in for

51 days, and now we are averaging 50 days for every patient admitted. Of the 50 days, roughly 30 days are spent in annexes or convalescent units, and only 20 days are spent in the acute treatment ward. With 1,200 admissions a year instead of 200, the death rate in the first six months after admission has dropped from 40 percent to 27 percent. The average age has risen from 68 to 75.9 years. We are dealing with the weakest, most infirm type of patient. In spite of that, because we are able to recognize the problems far more clearly than we did eight or nine years ago, we are able to discharge 56 percent of our patients back to their homes. Ten percent are still a long-stay annexes, although they are not there permanently, and under 2 percent are still bedfast six months after admission.

It is interesting to note that in a careful analysis by the Nuffield Foundation in 1947, before we started this program, the average stay at this chronic sick hospital at Oxford was 286 days.

Comment

We all practice the process of trial and error with a greater or lesser degree of success. If we are cognizant of our errors, then we can get along in finding many of the solutions that are necessary in this rapidly developing problem of care for the elderly. I would point out that we need many solutions. In the medical profession, we are prone to concentrate on finding one solution, whether medical or pathological. Now we must determine just how many things we have to do as we deal with patients in the aging years, not only to treat their medical conditions, but to arrange their rehabilitation and resettlement back in the community.

If we redesign our program, to provide the appropriate type of facilities and therapeutic accommodations, the appropriate staffs in medicine, nursing, physical therapy, occupational therapy, medical social service and clinical psychology; if we can carry out each of these processes at the right stage in the natural history of the disease, then we find we can give the patient a far better deal in a far shorter period of time. As the result of better service to each individual patient, the average duration of stay is considerably reduced, and if you reduce the

Glaucoma Case Finding

February 28th was "G" Day in Santa Ana. Eye tests were given to 1,023 persons including service club members and their wives, and county employees.

In a similar program in Santa Barbara in 1956, when the tests were offered to the general public, 680 persons with no previous history of glaucoma were tested. Of these, 194 were referred for further tests resulting in 46 diagnosed cases of glaucoma.

Cooperating in the planning for "G" Day were: the Orange County Health Department, the Section on Ophthalmology of the Orange County Medical Society, the Lions' Clubs in the Santa Ana area, the Orange County Welfare Department, and the California Chapter, National Society for the Prevention of Blindness.

Assistance was given by the Prevention of Blindness Project of the California State Department of Public Health in working out the educational part of the program.

Sanitarians Elect Officers for 1957

Donald Helgren, Consulting Public Health Sanitarian, State Department of Public Health, has been elected President of the California Association of Sanitarians. His fellow officers are: Richard Elliott of San Bernardino, president-elect; James Gates of San Luis Obispo, vice president; Jordan F. Hiratzka of Berkeley, secretary; and Maurice Hawkins of Arlington, treasurer.

The board of directors of the association announced that the annual symposium will be held concurrently with the western branch—APHA meeting in Long Beach, May 29 to June 1, 1957. The date for the symposium has been set for Wednesday, May 29.

number of days that a patient has to be in a hospital, you incidentally reduce the cost quite considerably.

I would like to throw another revolutionary principle at you before I finish. That is, that by and large, all long-term accommodations for the elderly should be part of a housing project and not of an institution. I will leave that with you to mull over.

Polio Vaccine Drive Gains Momentum; Department Accepts Local Plans

Local health department plans for community polio vaccination programs were accepted by the State Department of Public Health on February 26th, officially launching what is expected to be California's greatest effort to conquer a major communicable disease in the short span of four months. If some 6,000,000 Californians under the age of 40 who have not yet been vaccinated against polio will see to it that they receive their inoculations before the 1957 polio season begins, that goal will be reached.

Some immunization programs were already under way by March 1st, and most health departments planned to have their programs in full swing by March 15th. San Diego, first in the Nation to inoculate first and second grade school children under the National Foundation for Infantile Paralysis program in 1955, became first in California to launch a community-wide program for the inoculation of adults. Their program began with the opening of public clinics on February 9th in cooperation with the San Diego Medical Society. These clinics had passed the 50,000 mark by March 1st. San Diego also launched an extensive program to reach industrial and other groups with commercial vaccine. Again the San Diego Medical Society volunteered its members to man clinics for any group of 50 or more, using commercial vaccine at cost. That program had reached nearly 90,000 persons by March 1st. The clinic program was backed by a total community effort of education and participation to motivate residents to turn out for their vaccinations.

Development of local programs in most instances has been characterized by the formation of strong community committees, with wide representation from geographical and organizations segments. The medical profession; community, civic and service organizations; the churches; labor, industry and commerce have joined forces with public health to reduce the effects of paralytic poliomyelitis.

Success of California's goal to vaccinate 6,000,000 persons before the 1957 polio season rests heavily on the

effort that is put forward in each and every community to motivate two-thirds of that number which cannot be covered by the state purchased vaccine. Purpose of the vaccine to be purchased with \$3,000,000 of emergency funds provided by the State Legislature is to stimulate all Californians-not yet vaccinated to take advantage of the opportunity to obtain at least two injections prior to July 1st. For the individual who has not yet started his inoculations, this means that the first injection must be obtained immediately and the second one in about one month if the maximum protection is to be achieved before the polio season begins. Third injections when due in five to seven months are extremely important for continued protection.

Special emphasis is being placed on reaching preschoolers and young adults. Many parents have had their school-aged children immunized, but have failed to be immunized themselves. It is pointed out that one-third of the paralytic cases occurring in California occur in persons 20 to 40. The effects of paralytic polio is often more severe in the young adult group.

LOCAL PLANS

Plans for the polio vaccination program vary broadly within local health jurisdictions. Individuals or organizations wanting detailed information should contact their local health department directly.

The polio vaccination program for the seven counties of Alpine, Marin, Modoc, Mono, Nevada, Sierra and Trinity Counties, which contract with the State Department of Public Health for their public health services, will be directed by Dr. George O'Brien, Division of Local Health Services. Some of the unorganized counties are asking for the assistance of the department in carrying out their program.

Main points of the local plans follow:

COUNTY HEALTH DEPARTMENT PLANS

Alameda

Public clinics in high schools for students and personnel; general community clinics; hospital clinics for staff and patients; certain occupation group clinics and, if needed, regular health department clinics.

Amador

Public clinics. In addition, state vaccine will be supplied the Preston School of Industry.

Butte

Regular department clinics; neighborhood clinics; County Welfare Department; county hospital and, upon request, state vaccine to private physicians.

Contra Costa

Public clinics. Community-wide advisory committee to consider other methods for getting people vaccinated.

El Dorado

Public clinics in schools for preschoolers, school children and adults staffed by private physicians. Public clinics also will be set up in remote areas.

Fresno

Public clinics, and commercial vaccine in the offices of private physicians at a maximum fee of \$3 per injection.

Humboldt-Del Norte

Public clinics and commercial vaccine in the offices of private physicians.

Imperial

Preschool children and parents in Child Health Conferences and private physician offices; public clinics; school-age children programs by community practicing physicians and private physician offices; adults in private physician offices and in community groups, and commercial vaccine in offices of private physicians at a maximum fee of \$3 per injection.

Inyo

Public clinics; Inyo-Mono County Medical Society members to make commercial vaccine available at a fee of \$3 per injection, including cost of vaccine; state vaccine in private physician offices at no fee, and a separate campaign to vaccinate the Indian population in Bishop.

Kern

Public clinics staffed by volunteer physicians from the county medical society; many physicians setting special polio office hours for patients in the evening using commercial vaccine and at a fee of \$3 per injection.

Kings

Public clinics staffed by volunteer physicians through the county medical society; community group clinics with volunteer physicians through the society, and commercial vaccine in the offices of private physicians at a fee not to exceed \$3.

Lake

Public clinics.

Los Angeles

Junior and senior high school clinics; health center clinics; personnel in county institutions; provide state vaccine for industrial and community-organized groups, and private physicians administer state vaccine in their offices at a maximum fee of \$3 per injection.

Madera

Public clinics, and commercial vaccine in the offices of private physicians at a fee of \$3 per injection.

Marin

Public clinics staffed by volunteer physicians of the county medical society, and commercial vaccine in the offices of private physicians.

Mendocino

Public clinics; child health conferences, and commercial vaccine in the offices of private physicians of the Mendocino-Lake County Medical Society at a fee of \$3 per injection.

Merced

Public clinics; and state vaccine provided Castle Air Force Base, and community clinic groups using commercial vaccine.

Monterey

Public clinics with volunteer physician service by the county medical society, and commercial vaccine in the offices of private physicians.

Napa

State vaccine in the offices of private physicians through April 15 at a fee of \$4 per injection, but no one denied vaccination because of inability to pay. After that date vaccination results will be analyzed and if an adequate percentage of population has not been inoculated, public clinics will be opened.

Orange

Public clinics staffed by volunteer physician service from county medical society; school clinics, including colleges.

Riverside

Public clinics using commercial vaccine at \$1 per injection and staffed by physician service from the county medical society; state vaccine in schools by department and volunteer physicians; public clinic in health centers.

Sacramento

Public clinics with volunteer physician service from the county medical society, and volunteer physicians from society for community clinic groups numbering 200-500 persons.

San Benito

Public clinics staffed by volunteer county medical society members, and commercial vaccine in the offices of private physicians at a maximum fee of \$4 per injection.

San Bernardino

Public clinics.

San Diego

Public clinics staffed by volunteer physician service from the county medical society; community group clinics of 50 or more persons at \$1 per injection with commercial vaccine with volunteer physicians inoculating and the health department providing clinic supplies and personnel; commercial vaccine in the offices of private physicians at a maximum fee of \$3 per injection.

San Francisco

Public clinics; hospitals and other institutions.

San Joaquin

Public clinics at health centers; schools and industrial plants; prenatal patients at San Joaquin General Hospital; community groups of 50 or more persons using commercial vaccine at \$1 per injection, with inoculation by volunteer physician service from the county medical society, and commercial vaccine in the offices of private physicians at a maximum fee of \$3 per injection.

San Luis Obispo

Public clinics; special preschool children clinics, and community groups using commercial vaccine.

San Mateo

Health center clinic, and state vaccine in the offices of private physicians.

Santa Barbara

Public clinics staffed by volunteer physician service by the county medical society, and commercial vaccine in the offices of private physicians at a maximum fee of \$3 per injection.

Santa Clara

Public clinics staffed by volunteer physicians from county medical society; school clinics; community clinic groups, and recommended fee of \$3 per injection in physician offices using commercial vaccine.

Santa Cruz

Public clinics staffed by volunteer physician service by the county medical society.

Shasta

Public clinics staffed by volunteer physician service by county medical society, and state and commercial vaccine in the offices of private physicians.

Solano

Public, preschool children and high school clinics staffed by volunteer physicians by the county medical society; state vaccine in the offices of private physicians at a maximum fee of \$2 per injection, and community clinic groups staffed by volunteer physician service of the county medical society.

Sonoma

Public clinics staffed by volunteer physician service of the county medical society, and commercial vaccine in the offices of private physicians at a maximum fee of \$4 per injection.

Stanislaus

Public, health department and school clinics staffed by volunteer physician service of the county medical society, and commercial vaccine in the offices of private physicians at a maximum fee of \$3 per injection.

Sutter-Yuba

Health center clinics.

Tehama

Medical clinic supported by the county medical society, Soroptomist Club and county nurses association.

Tulare

Public clinics staffed by volunteer physician service from the county medical society; commercial vaccine in the offices of private

physicians at a maximum fee of \$2.50 per injection, and community clinic groups staffed by volunteer physician service of the medical society.

Tuolumne

Public clinics and state vaccine in the offices of private physicians at a service fee.

Ventura

Public clinics.

Yolo

Public clinics, child health conferences, and state vaccine in the offices of private physicians.

CITY HEALTH DEPARTMENT PLANS**Alameda**

High school and general community clinics; hospital staffs and patients, and certain occupation groups.

Albany

Public clinics staffed by volunteer physician services, and state vaccine in the offices of private physicians.

Berkeley

Public clinics; community clinic groups purchasing own vaccine and engaging physicians at a fee or, in some instances, volunteer physician service, and vaccine to inoculate student body of University of California.

Oakland

Public clinics, and organization of industrial groups.

Long Beach

Public clinics; city employee clinic, and organized industrial clinics.

Los Angeles

Health department clinics; special clinics at housing projects, community groups, industrial groups, city employees and schools, using state vaccine; state vaccine in the offices of private physicians at a maximum fee of \$3 per injection.

Pasadena

Public clinics staffed by volunteer physician service of the Pasadena Section of the Los Angeles Medical Society; commercial vaccine in the offices of private physicians at a fee of \$3 per injection, and organized community clinic groups.

San Bernardino

Public clinics.

Santa Barbara

Public clinics, and commercial vaccine in the offices of private physicians at \$3 per injection.

San Jose

Public clinics with volunteer physician service from the county medical society.

Plans in many of these health jurisdictions may have changed since the publication of this information. Please contact your local health department or medical society for complete information.

Department to Cooperate In Crash Injury Research

In an effort to decrease the injuries and deaths on the highways of California, the State Department of Public Health and the California Highway Patrol have undertaken a joint research project in collaboration with Cornell University Medical College. The three-year study is scheduled to begin March 1, 1957.

The U. S. Public Health Service, in support of the project, will assign Mr. Sam Evans to the State Department of Public Health. He will act as liaison with the Highway Patrol, and with local medical societies, hospital societies and health departments in the areas under study.

San Benito, San Mateo, Stanislaus, Calaveras, and Tuolumne Counties are the areas which will be under study during the first phase of the project. Accident-injury information will be collected in six areas of the State; each area will be studied for a six-months period in an effort to get the true incidence for the State.

Factual information on the specific causes of injuries to the occupants of automobiles involved in accidents will be gathered and made available to automobile manufacturers, insurance companies, public health and safety organizations for use in improving safety in automobile design.

The study aimed at reducing the frequency of injury and death was designed by the Automotive Crash Injury Research project at Cornell University under an original grant from the Department of the Army. Funds for the project have also been provided by the National Institutes of Health, U. S. Public Health Serv-

Dr. Winslow Passes

Dr. C. E. A. Winslow, one of the great figures in public health, died during January.

"The death of Dr. Winslow leaves a void in the ranks of professional public health workers that will not be filled in this generation. Very few men achieve the long array of professional honors that came to him, right to the end of his career. He will be long remembered as teacher, investigator, litterateur, editor, gifted public speaker, and gentleman." So wrote Murray P. Horwood, Professor of Sanitary Science in the Massachusetts Institute of Technology and which expresses the feelings of public health workers in the loss of Dr. Winslow.

Health Officer Changes

City of Sacramento

The Sacramento County Health Department now serves all incorporated and unincorporated areas of the county. (See January 1, 1957, issue of *California's Health*.) Dr. Ira O. Church is health officer of Sacramento County.

City of Paramount

The newly incorporated City of Paramount is now being served by the Los Angeles County Health Department, Dr. Roy Gilbert, Health Officer.

ice; the Ford Motor Company and the Chrysler Corporation have given grants for expansion of the study.

The Home Safety Project, Division of Environmental Sanitation will have administrative responsibility, within the department, for the conduct of the project.

Other states participating in the project are North Carolina, Maryland, Connecticut, Virginia, Indiana, Arizona, Minnesota, Vermont and Texas.

Public Health Positions

Butte County

Director of Nursing: Salary range, \$400 to \$542. Generalized program with school nursing; staff of eight nurses with student program. State retirement system. County car or eight cents per mile. Write: G. L. Faber, M.D., Director, Butte County Health Department, P. O. Box 1100, Chico.

Stanislaus County

Public Health Nurses: Salary range, \$349 to \$419. Generalized program. County car furnished. California registration required. Apply to: Robert S. Westphal, M.D., P. O. Box 1607, Modesto.

GOODWIN J. KNIGHT, Governor
MALCOLM H. MERRILL, M.D., M.P.H.
State Director of Public Health

STATE BOARD OF PUBLIC HEALTH
CHARLES E. SMITH, M.D., President
San Francisco
MRS. P. D. BEVIL, Vice President
Sacramento
DAVE F. DOZIER, M.D.
Sacramento
L. S. GOERKE, M.D.
Los Angeles
HARRY E. HENDERSON, M.D.
Santa Barbara
ERROL R. KING, D.O.
Riverside
SAMUEL J. McCLENDON, M.D.
San Diego
HENRY J. VOLONTE, D.D.S.
Hillsborough
FRANCIS A. WALSH
Los Angeles
MALCOLM H. MERRILL, M.D.
Executive Officer
Berkeley

Entered as second-class matter Jan. 25, 1949,
at the Post Office at Berkeley, California,
under the Act of Aug. 24, 1912. Acceptance
for mailing at the special rate approved for
in Section 1103, Act of Oct. 3, 1917.

STATE DEPARTMENT OF PUBLIC HEALTH
BUREAU OF HEALTH EDUCATION
2151 BERKELEY WAY
BERKELEY 4, CALIFORNIA

Documents Division
General Library
Univ. of Michigan
Ann Arbor, Mich.

